

HOV Pooled Fund Study Automated Vehicle-Occupancy Verification Technologies Study

David Ungemah, TTI
May 26, 2006
Project Kick-off Meeting

Presentation Acronym

n AVOV = Automated Vehicle
Occupancy Verification



Agenda

- n Welcome / Introductions
- n Overview of Project Objectives (Spiller)
- n Project Presentation (Ungemah)
 - q Objectives
 - q Key Personnel
 - q Key Issues
 - q Work Plan
- n Discussion



Problem

- n Reliance on field enforcement for occupancy



n Easy abuse of HOV system



Automated Vehicle Occupancy Verification

[illegible]



Project Objectives

- n Review / Synthesis for AVOV
 - q Concepts, methods, technologies
- n Identify concepts / technologies
 - q In-vehicle / Infrastructure Integration
- n Automated toll violation integration
- n Criteria for improved AVOV
 - q Functional requirements
- n Guidance for implementing AVOV
 - q Privacy, legal, cost, performance



Key Personnel

- n Task Order Leader & Technical Oversight
 - q Ginger Goodin, TTI
- n Support Researchers
 - q John Wikander, TTI
 - n technical research / synthesis
 - q David Ungemah, TTI
 - n interim TOL / policy & privacy perceptions
 - q Chris Poe, TTI
 - n technologies / toll violation systems
 - q Hassan Charara, TTI
 - n high-level system functional specifications
 - q Denny Stephens, Battelle
 - n in-vehicle – infrastructure integration



Project Team / Coordination

- n TTI / Battelle
- n FHWA
- n URS
- n HOV Pooled Fund Study members
- n Others as designated by FHWA:
 - q ITE TMC Committee & Transit Council
 - q TRB Freeway Operations, HOV Systems, and Congestion Pricing Committees



HOV Pooled Fund Study Members

- n Review / comment on milestone deliverables
- n Enlist stakeholders for participation



Key Issues for AVOV Research

- n How do various AVOV initiatives work?
- n What obstacles do they face?
- n What is the outlook for success or widespread use of these technologies?
- n What technologies are on the horizon, including “pie-in-the-sky” ideas that are perhaps years away from being considered?
- n What technologies, if any, have been devised, but rejected, and why?



Work Tasks

- n A: Work Plan and References
- n B: Synthesis of Practice and Annotated Outline
- n C: Research White Paper
- n D: Fact Sheet, Presentation, and Distribution Plan



Task A: Work Plan / References

n Schedule

- q Kick-off meeting (A.1): May 26, 2006
- q List of references (A.2):
 - n Draft: May 26, 2006 / Revised: July 24, 2006
- q Work Plan (A.2):
 - n Draft: May 26, 2006 / Revised: July 24, 2006
- q Information Collection
 - n June – Sep, 2006



Task A: Work Plan / References

n Information Collection Approach

- q Outreach to...
 - n Agencies with “next generation” HOV/HOT projects
 - n Vendors / trade consultants
 - n Researchers / practitioners
- q Approach...
 - n Agency teleconference (TTI, FHWA, SANDAG)
 - n Outreach to vendors / trade consultants
 - n Workshop (agencies / practitioners / researchers) via webinar
 - n Systems engineering process for concept of operations



Task B: Synthesis / Outline

n Schedule:

- q Synthesis Report (B.1):
 - n Draft: Sep 2, 2006 / Revised: Oct 8, 2006

- q Annotated Outline (B.2):
 - n Initial: Sep 2, 2006
 - n Draft: Oct 12, 2006
 - n Final: Nov 21, 2006



Task C: Research White Paper

n Schedule:

- q Research White Paper Mockups (C.1):
 - n Dec 31, 2006

- q Draft Research White Paper (C.2):
 - n Jan 30, 2007

- q Final Research White Paper (C.3):
 - n Mar 21, 2007



Task D: Fact Sheet / Presentation / Distribution Plan

- n Schedule:

- q Project Fact Sheet (D.1):

- n Initial: May 26, 2006

- n Revised: Mar 31, 2007 / Final: Apr 28, 2007

- q Subject Presentation (D.2):

- n Draft: Mar 31, 2007 / Final: Apr 28, 2007

- q Distribution Plan, Letter, & Notice (D.3):

- n Draft: Mar 31, 2007 / Final: Apr 28, 2007



Project Fact Sheet

- n Review Preliminary

- n Periodic Updates



Preliminary Reference List

- n Review List
- n Suggestions on Other Available Reports or Documents
- n Suggestions on Agency Contacts, Other Studies, and Related Information



Discussion of Agency Issues

- n Topics/Concerns



Next Steps

- n Follow-up Actions
- n Next Call/Meeting